Review of SCDP Milwaukee Evaluation Report #30

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Summary of Review

The School Choice Demonstration Project has published a series of reports written in the fifth and final year of its evaluation of the Milwaukee Parental Choice Program (MPCP). This review is of Report #30, a final follow up to a five-year study examining high school graduation and post-secondary enrollment rates for students participating in the MPCP. Researchers tracked an initial sample of MPCP students enrolled in either 8th or 9th grade in 2006 and compared their high school graduation and college enrollment rates with a sample of Milwaukee Public School (MPS) students. The report found that voucher students who attended a private school in 8th or 9th grade in 2006 "were more likely to graduate high school," "enroll in a four-year post-secondary institution," and "persist in that four-year institution beyond the first year of enrollment." Such conclusions should be considered alongside at least two important caveats, however. The first is a methodological concern. Roughly 56%* of the original sample of 801 MPCP 9th graders were not still enrolled in a MPCP high school in 12th grade. The inferences drawn about the effects of the MPCP on graduation rates compared with those in the MPS are severely clouded by substantial sample attrition. A second concern lies in the report’s interpretation of the data. Among the most careful statistically controlled analyses, only one finding was statistically significant at conventional levels. These two limitations prevent broad conclusions being drawn about the relative effectiveness of the MPCP and the MPS on graduation and higher education continuation rates.

* This figure has been changed to reflect a change in the original SCDP report. See endnote 3 for a full explanation.
I. Introduction

The Milwaukee Parental Choice Program (MPCP) is currently the largest urban school voucher program in the nation. At present, nearly 21,000 students use a voucher of up to $6,442 to attend secular or religious private schools in Milwaukee. Voucher programs have long been the objects of intense debates over the efficient and appropriate use of public education funds.

In February 2012 the School Choice Demonstration Project\(^1\) released a series of final reports from its five-year evaluation of the MPCP. The Wisconsin Legislature in 2005 required MPCP schools to administer nationally normed tests in grades 4, 8, and 10 to MPCP students, and to also submit the test scores to the School Choice Demonstration Project for purposes of evaluation. The reports address a range of issues related to the MPCP, including special education services, school climate and contexts, and test score performance. Of particular interest to policymakers has been the performance of MPCP students relative to students in the Milwaukee Public Schools (MPS). The School Choice Demonstration Project report under review here is Report #30, Student Attainment and the Milwaukee Parental Choice Program: Final Follow-up Analysis, which addresses high school graduation and post-secondary enrollment rates of the voucher program in comparison with traditional public school students. It is authored by Joshua M. Cowen, David J. Fleming, John F. Witte, Patrick J. Wolf and Brian Kisida.\(^2\)

II. Findings and Conclusions of the Report

This report is a final follow-up to a five-year study examining high school graduation and post-secondary enrollment rates for students participating in the MPCP. Researchers tracked an initial sample of MPCP students in either 8\(^{th}\) or 9\(^{th}\) grade in 2006 and compared their high school graduation and college enrollment rates with those of a sample of MPS students. The report found that voucher students who attended a private school in 8\(^{th}\) or 9\(^{th}\) grade in 2006 “were more likely to graduate high school,” “enroll in a four-year post-secondary institution,” and “persist in that four-year institution beyond the first year of enrollment” (p. 16).
The report found that most MPCP and MPS students who entered post-secondary institutions attended University of Wisconsin-Milwaukee, the University of Wisconsin-Whitewater, or Alverno College. Among college-goers in both sectors, MPCP students were more likely to attend religious or private four-year institutions, more likely to enroll in slightly more expensive institutions, and more likely to attend institutions whose students had slightly lower SAT and ACT scores. There were no differences in acceptance rates among institutions attended by MPCP and MPS students.

III. The Report’s Rationale for Its Findings and Conclusions

To the report’s credit, it offered several caveats to its findings. The first entailed the relative smallness of the MPCP high school program. The panel of 801 9th graders under examination constituted the entire population of MPCP 9th graders in 2006, representing less than 5% of all MPCP students that year. Moreover less than one-fourth of all MPCP schools served high school grades. The report raised the possibility that such “small numbers could exacerbate [any] selection bias problems” (p. 16). To examine this prospect, MPCP 8th graders enrolled in 2006 were compared with students who remained in MPCP the following year (9th grade); the comparison revealed “no systematic evidence that those students who remain in the MPCP for 9th grade are dramatically different in terms of demographics, prior achievement or these other demographic measures from MPCP students who switch to the MPS for high school” (p. 16).

A second caveat noted by the report is critically important to evaluating the validity of the inferences it draws from its findings. The report indicates that the “majority of students (approximately 56 percent)3 who were enrolled in 9th grade in MPCP were not enrolled there by the time they reached 12th grade” (p. 16). The report acknowledges that the “results of this paper as a whole should therefore be interpreted as the effect of ‘exposure’ to the MPCP rather than long-term persistence in that sector” (p. 16). No analyses were offered that examined the relationship between MPCP “exposure” and educational attainment. Readers are made aware that roughly 450 of the original 801 MPCP 9th graders were not enrolled in an MPCP high school in 12th grade; however, there is no indication of when students left (most likely because researchers did not have access to this information). The report acknowledges that “students who leave MPCP for public schools are among the lowest performing private school students” (p. 16).

Finally, a third caveat is that this type of analysis examines overall differences on average between the two sectors and is not designed to investigate what individual schools might be doing to cause such differences. The report references companion qualitative examinations better suited for this task (e.g., Report 34: School Site Visits: What Can We Learn from Choice Schools in Milwaukee?).

The report aptly concludes that even “if the results we present here are interpreted as evidence that MPCP students are performing slightly better on one metric—attaining a given level of education—they do not support a comprehensive conclusion that the MPCP
necessarily provides a better learning environment than MPS” (p. 17, emphasis in original).

IV. The Report’s Use of Research Literature

The report references several peer-reviewed studies that are relevant to the research. In particular it is very thorough in its summary of research on a variety of life outcomes associated with higher educational attainment.

V. Review of the Report’s Methods

Three aspects of the report’s methods are highlighted here: sample matching techniques, calculation of graduation rates and continuation rates.

Sample Matching Techniques

The sampling procedures are described in sufficient detail, particularly the process by which the sample of MPS students was matched to the MPCP sample. The primary MPCP sample (n=801) was actually the entire population of 9th grade MPCP students enrolled in 2006-07. This group was supplemented by a “refreshed” sample of 290 MPCP 8th graders enrolled the same year and was drawn from “grade-stratified representative samples.”

The report aptly underscores the importance of establishing an MPS sample that is comparable to the MPCP group, particularly on characteristics that affect student achievement. In this case, the researchers matched each MPCP student to an MPS student on observable characteristics, including race, gender, and prior test scores.

When possible, the report used census tract as one of the observable characteristics, matching MPCP students with an MPS student with similar demographic and academic characteristics located in the same neighborhood.

Graduation Rate Determination

Determining who among the 1,091 8th and 9th graders in 2006 graduated four and five years later was complicated by students switching schools, leaving the state, dropping out, or otherwise disappearing from state graduation lists. The report describes a process of attempting to locate student names on lists of MPS and MPCP graduates from the 2009-2010 and 2010-2011 school years. The report does not indicate how many students were not located, and simply states,

These sources, while valuable for confirming graduation status and current enrollment, did not provide us with all information needed for our analysis. In particular, we could not determine students who may have graduated from schools outside of either MPCP or MPS (p. 5).
The report also acknowledges that “[a] student who began our study in the MPCP panel could have graduated from MPS, and vice-versa. The operation of the school choice program, specifically the scarcity of high schools in the program, makes MPCP-to-MPS transfers particularly common (Cowen et al., 2010)” (p. 5). So some students who began in MPCP later graduated from MPS (and apparently vice versa) but the length of time in either program was not factored in the analysis. Notably, more than half the students (56%) in the MPCP 9th grade sample were not in the MPCP four years later. Curiously, it fails to state how many program-switchers there were, when they switched and in which direction, and how many graduated. I will return to this point later, as it is critically important to any inferences made of the findings.

The authors did note that phone surveys in 2010 and 2011 “increased the response of the original 9th grade sample to nearly 75 percent” (p. 5). Similar overall response rates were not provided for the 8th grade refresh sample.

Graduation rates among the MPCP and MPS samples were determined by dividing the total number of graduates in each group—irrespective of which sector a student graduated from—by the number of students known to have graduated. Graduation results are presented in the report’s Table 1 (p. 6). To its credit, the report does not stop at this point. It conducts more sophisticated analyses to help account for possible systematic differences between students in the two sectors, statistically controlling for the influence of race, gender, and academic ability on graduation rates. These additional controls present a stronger argument for any difference in graduation rates between sectors. But, in fact, the results (presented in the report’s Table 2, p. 8) indicate that there is no appreciable difference in graduation rates between the two sectors at conventional levels of statistical probability. The report denotes this finding as significant at the p<.10 level, which is technically accurate but can be somewhat misleading. Reporting statistical significance at this level is not unheard of, but it is also a more lenient criterion than is usually acceptable in social science research—particularly when samples of this size, where statistical significance is easier to obtain, are analyzed.

**Post-secondary Continuation Rates**

The analyses conducted for post-secondary enrollment were performed in similar fashion. Initial summary statistics were computed by sector for students attending two- and four-year colleges, and then more sophisticated multivariate analyses were employed. For these analyses, in addition to controlling for race, gender, and prior math and reading achievement, the authors adjusted for parental characteristics, such as education level and income. The researchers should be commended for adding these variables to the model, as parental socioeconomic status is a strong predictor of student academic and attainment outcomes. After all of these student characteristics were taken into account, the effects of being in the voucher program were not statistically significant at conventional levels (see the report’s Table 9, p. 15). The report again relies on the far looser statistical probability levels of .10 in summarizing these results, reporting that “only the high school graduate and four-year enrollment differences remain statistically significant at a level approaching convention
After offering caveats and cautions, the report concludes: “Nevertheless, the results in Table 9 generally confirm the positive MPCP difference in educational attainment, even after adjusting in particular for the attainment level of a student’s parent” (p. 14).

VI. Review of the Validity of the Findings and Conclusions

Summary statements found in the report’s executive summary and conclusion, while not inaccurate, do invite conclusions about MPCP effects that are likely not warranted by the data presented. For example, the report concludes that the “results here suggest that students who used a voucher to attend private school in 8th or 9th grade were more likely to graduate high school” (p. 16). The problem is that we do not know exactly where they graduated high school or for how long they were enrolled in a voucher program school. This one caveat alone calls into question the usefulness of nearly the entire study.

Several of the report’s summary statements are not necessarily supported by the analyses. A set of analyses were conducted that compared MPCP and MPS attainment; each analysis was more rigorous or tightly controlled than the previous one. The final set of analyses indicated that differences in attainment rates between MPCP and MPS sectors were negligible. Indeed, among the more carefully statistically controlled analyses only one finding was statistically significant at conventional levels: the report’s Table 5 results controlled for prior achievement and showed statistically significant differences ($p < .01$) on attending and persisting in four-year post-secondary institutions. The report’s findings may be much ado about nothing.

VII. Usefulness of the Report for Guidance of Policy and Practice

The report shines light on the important indicators of educational attainment, such as high school graduation and enrollment in college. Such indicators are often over-shadowed by test performance, which is heavily emphasized by accountability systems and politicians, and ubiquitous as dependent variables in research examining the efficacy of school choice programs. Educational attainment indicators, in contrast, are far more relevant and important to students and their families.

A significant point to note about this report is that there really aren’t many, if any, differences to report here. Even if there were, the research design is not robust enough to inform the reader about the causal effects of a voucher program.
Notes and References

1 The School Choice Demonstration Project (SCDP) is housed in the Department of Education Reform at the University of Arkansas (http://www.uark.edu/ua/der/SCDP/Research.html).


Note: The authors reposted the report during the process of this review. Page 3 of the revised report indicates it was “Updated and Corrected March 8, 2102.” No specifics were provided as to what was updated or corrected, but it was determined in early April 2013 that one figure involving sample attrition was changed in the original report from “approximately 75%” to “approximately 56%” (p. 16). This review, as of April 8, 2013, reflects that change.

3 When the report was originally published, this figure was “75%,” and that 75% figure was used in when this review was originally published. The 75% figure was, however, subsequently changed to 56% in an “updated and corrected” version that was apparently uploaded on March 8, 2012. The review took place during a period in which Report 30 was reposted with this updated and corrected version, which did not indicate what items were in fact updated or corrected. This revised review changes the 75% figure to reflect the now asserted 56% figure, with a corresponding change to the stated attrition number of 600 students (now 450 students). Because the “updated and corrected” report does not explain the reason for the change and because the researchers have not made the data available for reanalysis, this review simply accepts the SCDP authors’ word that the 56% figure is accurate.